



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,083	12/21/1999	AMIT KESARWANI	BS99-059	3192
7590 04/14/2006				
Withers & Keys, LLC P.O. Box 71355 Marietta, GA 30007-1356				
			EXAMINER	
			NALVEN, ANDREW L	
			ART UNIT	PAPER NUMBER
			2134	
DATE MAILED: 04/14/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/468,083	Applicant(s) KESARWANI ET AL.	
	Examiner Andrew L. Nalven	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/24/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-13 and 15-30 are pending.

Response to Arguments

2. Applicant's arguments filed 24 January 2006 directed to the Guck reference have been fully considered but are moot in view of the new grounds of rejection.

3. Applicant's arguments filed 24 January 2006 directed to the Beach reference have been fully considered but are not persuasive.

4. Applicant has argued on page 4 that the Beach reference fails to teach "a set of mathematical equations within a database where each equation is stored as a set of sequential steps" and "each step...is associated with a variable or an operator."

Applicant alleges that Beach's mathematical/relational functions that are complete functions modeling a specific business function are not the same as the claimed mathematical equations where each equation is stored as a set of sequential steps. Examiner respectfully disagrees. Beach's mathematical/relational functions are the same as the claimed mathematical equations. Both are a series of steps for the translation of data (Beach, column 7 lines 57-63). Each of Beach's mathematical/relational functions are stand alone functions as Applicant has noted; however, this does not mean the function is not a series of stored sequential steps. Every function is a series of sequential steps for the transformation of input data.

Art Unit: 2134

Because this function is stored on a computer readable medium, it is thus a stored series of sequential steps. As a result, Examiner maintains that Beach teaches "a set of mathematical equations within a database where each equation is stored as a set of sequential steps" and "each step...is associated with a variable or an operator" (Beach, column 12 lines 22-51).

Drawings

5. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams US Patent No. 5,692,157 in view of Garrison US PG Pub 2001/0011349 and Beach et al US Patent No. 5,924,077.

8. With regards to claims 1,10, and 19, Williams discloses a main office retaining a set of access rules, the main office in communication with at least one remote office (Williams, column 13 lines 8-14, client/server and formats), the remote office initiating contact with the main office and receiving the set of access rules from the main office after having initiated contact (Williams, column 13 lines 11-31, global registry maintained by server), wherein the remote office communicates with the main office in conformity with the set of access rules received from the main office (Williams, Abstract), wherein the set of access rules govern the transmission of data from the remote office to the main office (Williams, Abstract, column 13 lines 17-21); wherein for each type of data transfer from the remote office to the main office there is an access rule that comprises an only formatting standard rule used by the main office for data transfers of that type (Williams, column 13 lines 27-31), and wherein the formatting standard rule for the data transfer of that type is sent to the remote office by the main office in response to the initiation of contact by the remote office and before the remote office sends entered data to the main office such that the entered data is first correctly formatted to be compatible with the only format (Williams, column 13 lines 11-31, column 14 lines 9-11, only one format) used by the main office for the data transfer of that type (Williams, column 13 lines 8-31, receive formats then perform operations). Williams fails to disclose a single permissible formatting standard rule used for data transfers of that type that is automatically sent to a remote office before sending data. Beach teaches a set of mathematical equations within a database where each equation is stored as a set of sequential steps within a dimension of the database (Beach,

Art Unit: 2134

column 12 lines 22-51) where each step of the dimension is associated with a variable or mathematical operator that is used in conjunction with variables and mathematical operators of previous steps to generate the equation (Beach, column 12 lines 20-35) and the receiving of data to apply the set of mathematical equations to (Beach, column 7 lines 57-65). Garrison teaches a single permissible formatting standard rule used for data transfers of that type that is automatically sent to a remote office before sending data (Garrison, Figure 4A, user initiates contact to server, server responds with encryption key that must be used to format all data sent to server, Paragraphs 0062-0065). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Beach's data transformation method and Garrison's method of sending a single permissible rule to a remote server with Williams' transfer method because they offer the advantage of facilitating the evaluation and management of data by providing a standard report of data (Beach, column 2 lines 15-60) and the advantage of frustrating attempts by hackers to spoof the server with requests for data previously used in other data sessions (Garrison, paragraph 0064).

9. Claims 2-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being anticipated by Williams US Patent No. 5,692,157, Garrison US PG Pub 2001/0011349, and Beach et al US Patent No. 5,924,077, as applied to claim 1 above, and in further view of Keyser et al US Patent No. 5,025,373. Keyser discloses a portable personal-banking system based upon a remote terminal communicating with a central server.

Art Unit: 2134

10. With regards to claim 2, Williams as modified above fails to teach a security access code. Keyser teaches a security access code in the form of a unique terminal or personal computer identification (Keyser, column 6, lines 12-14). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's method of security with Williams' object transfer system because it offers the advantage of allowing a host computer to determine how it will properly server a remote system (Keyser, column 6, lines 12-17).

11. With regards to claim 3, Williams as modified above fails to teach a password in the form of a pin. Keyser teaches a password in the form of a PIN (personal identification number) (Keyser, column 6, lines 20-22). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's method of security with Williams' object transfer system because it offers the advantage of ensuring no services are provided to an unauthorized user (Keyser, column 6, lines 20-23).

12. With regards to claim 4, Williams as modified above fails to teach the verification of login information. Keyser teaches the verification of login information before any services are provided (Keyser, column 6, lines 21-22). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's method of security with Williams' object transfer system because it offers the advantage of ensuring no services are provided to an unauthorized user (Keyser, column 6, lines 20-23).

Art Unit: 2134

13. With regards to claim 7, Williams as modified above fails to teach data rules including field formats. Keyser teaches data rules including field format such as a numeral (Keyser, column 4, lines 41), a date (Keyser, column 7, lines 58-60), or a currency (Keyser, column 7, lines 52-56). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's data formats with William's object transfer system because it offers the advantage of ensuring accurate data transmission from the remote system to the host computer (Keyser, column 7 line 62 – column 8 line 4).

14. With regards to claim 8, Williams as modified above fails to teach data rules specifying number of fields to communicate to the main host. Keyser teaches data rules that specify the number of fields to communicate with the main host such as sending a single field in response to a request to choose a menu option (Keyser, column 14, lines 27-35). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's data formats with William's object transfer system because it offers the advantage of ensuring accurate data transmission from the remote system to the host computer (Keyser, column 7 line 62 – column 8 line 4).

15. With regards to claim 9, Williams as modified above a plurality of remote offices that receive the set of access rules and that transfer data to the main office in conformity with the access rules (Beach, Figure 1).

Art Unit: 2134

16. Claims 10, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams US Patent No. 5,692,157 in view of Garrison US PG Pub 2001/0011349.

Williams discloses a method of transferring objects using registered formats.

17. With regards to claims 10, and 19, Williams discloses a main office retaining a set of access rules, the main office in communication with at least one remote office (Williams, column 13 lines 8-14, client/server and formats), the remote office initiating contact with the main office and receiving the set of access rules from the main office after having initiated contact (Williams, column 13 lines 11-31, global registry maintained by server), wherein the remote office communicates with the main office in conformity with the set of access rules received from the main office (Williams, Abstract), wherein the set of access rules govern the transmission of data from the remote office to the main office (Williams, Abstract, column 13 lines 17-21), wherein for each type of data transfer from the remote office to the main office there is an access rule that comprises an only formatting standard rule used by the main office for data transfers of that type (Williams, column 13 lines 27-31), and wherein the formatting standard rule for the data transfer of that type is sent to the remote office by the main office in response to the initiation of contact by the remote office and before the remote office sends entered data to the main office such that the entered data is first correctly formatted to be compatible with the only format (Williams, column 13 lines 11-31, column 14 lines 9-11, only one format) used by the main office for the data transfer of that type (Williams, column 13 lines 8-31, receive formats then perform operations). Williams fails to disclose a single permissible formatting standard rule used for data

Art Unit: 2134

transfers of that type that is automatically sent to a remote office before sending data.

Garrison teaches a single permissible formatting standard rule used for data transfers of that type that is automatically sent to a remote office before sending data (Garrison, Figure 4A, user initiates contact to server, server responds with encryption key that must be used to format all data sent to server, Paragraphs 0062-0065). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Garrison's method of sending a single permissible rule to a remote server with Williams' transfer method because it offers the advantage of frustrating attempts by hackers to spoof the server with requests for data previously used in other data sessions (Garrison, paragraph 0064).

18. With regards to claim 20, Williams as modified above teaches two or more remote offices (Williams, Figure 5).

19. With regards to claim 24, Williams as modified above teaches a change to one of the access rules in the main office causing a substantially similar change in at least one of the remote offices (Williams, column 13 lines 15-17 and 27-31).

20. Claims 11-13, 15-17, and 23 are rejected under 35 U.S.C. 103(a) as being anticipated by Williams US Patent No. 5,692,157 and Garrison US PG Pub 2001/0011349, as applied to claims 10, and 19 above, and in further view of Keyser et al US Patent No. 5,025,373. Keyser discloses a portable personal-banking system based upon a remote terminal communicating with a central server.

Art Unit: 2134

21. With regards to claim 15, Williams as modified above fails to teach a security access code. Keyser teaches a security access code in the form of a unique terminal or personal computer identification (Keyser, column 6, lines 12-14). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's method of security with Williams' object transfer system because it offers the advantage of allowing a host computer to determine how it will properly server a remote system (Keyser, column 6, lines 12-17).

22. With regards to claim 16, Williams as modified above fails to teach a password in the form of a pin. Keyser teaches a password in the form of a PIN (personal identification number) (Keyser, column 6, lines 20-22). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's method of security with Williams' object transfer system because it offers the advantage of ensuring no services are provided to an unauthorized user (Keyser, column 6, lines 20-23).

23. With regards to claim 17, Williams as modified above fails to teach the verification of login information. Keyser teaches the verification of login information before any services are provided (Keyser, column 6, lines 21-22). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's method of security with Williams' object transfer system because it offers the advantage of ensuring no services are provided to an unauthorized user (Keyser, column 6, lines 20-23).

Art Unit: 2134

24. With regards to claim 11, Williams as modified above fails to teach data rules including field formats. Keyser teaches data rules including field format such as a numeral (Keyser, column 4, lines 41), a date (Keyser, column 7, lines 58-60), or a currency (Keyser, column 7, lines 52-56). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's data formats with William's object transfer system because it offers the advantage of ensuring accurate data transmission from the remote system to the host computer (Keyser, column 7 line 62 – column 8 line 4).

25. With regards to claim 12, Williams as modified above fails to teach data rules specifying number of fields to communicate to the main host. Keyser teaches data rules that specify the number of fields to communicate with the main host such as sending a single field in response to a request to choose a menu option (Keyser, column 14, lines 27-35). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's data formats with William's object transfer system because it offers the advantage of ensuring accurate data transmission from the remote system to the host computer (Keyser, column 7 line 62 – column 8 line 4).

26. With regards to claim 13, Williams as modified above fails to teach data rules specifying the organization of currency or data fields. Keyser teaches data rules that specify the organization of a field such as currency fields or date fields (Keyser, column 11, lines 14-20). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's data formats with William's object transfer system because it offers the advantage of ensuring accurate data transmission

Art Unit: 2134

from the remote system to the host computer (Keyser, column 7 line 62 – column 8 line 4).

27. With regards to claim 23, Williams as modified above fails to teach changing data rules causing similar changes in data rules for remote terminals. Keyser teaches that a change in data rules at the main host causes a change in data rules at the terminal by changing how options are exercised (Keyser, column 5, lines 15-22). Upon each connection, new menu items are sent to the terminals that define the data rules for the session (Keyser, column 13 line 65 – column 14 line 34). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Keyser's data formats with William's object transfer system because it offers the advantage of ensuring accurate data transmission from the remote system to the host computer (Keyser, column 7 line 62 – column 8 line 4).

28. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams US Patent No 5,692,157, Garrison US PG Pub 2001/0011349, and Beach et al US Patent No. 5,924,077, as applied to claim 1 above, and in further view of Schaefer US Patent No. 5,826,268.

29. With regards to claim 5, Williams as modified above fails to teach access rules that limit the amount of information the remote office has access to. Schaefer discloses a secure multilevel object oriented database management system. Schaefer discloses an access validation monitor that enforces access rules (column 1 line 64 – column 2 line 4) of communication that limits the amount of data in the form of objects accessible

(column 3, lines 65-67) to a remote user such as a client site (column 3, line 64). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to provide access rules that limit the amount of accessible data because it would allow a distinction to be made between authorized and unauthorized data for a specific client (column 1 line 66 – column 2 line 4) and thus provide varying levels of access.

30. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams US Patent No 5,692,157 and Garrison US PG Pub 2001/0011349, as applied to claim 19 above, and in further view of Hamala et al US Patent No. 5,345,586.

31. With regards to claims 21 and 22, Williams fails to teach to remote terminals communicating with the main host over the internet or an intranet. Hamala describes a system of manipulating heterogeneous distributed data a data processing system. Hamala discloses that data manipulation may work on data distributed across a network or a plurality of networks (column 3, lines 24-26) including gateways (Figure 1). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Hamala's range of communication because it would provide greater range of access opportunities to the host computer.

32. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams US Patent No. 5,692,157, Garrison US PG Pub 2001/0011349, and Keyser et al US Patent No. 5,025,373, as applied to claim 15 above, and in further view of Schaefer US Patent No. 5,826,268.

Art Unit: 2134

33. With regards to claim 18, Williams as modified above fails to teach access rules that limit the amount of information the remote office has access to. Schaefer discloses a secure multilevel object oriented database management system. Schaefer discloses an access validation monitor that enforces access rules (column 1 line 64 – column 2 line 4) of communication that limits the amount of data in the form of objects accessible (column 3, lines 65-67) to a remote user such as a client site (column 3, line 64). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to provide access rules that limit the amount of accessible data because it would allow a distinction to be made between authorized and unauthorized data for a specific client (column 1 line 66 – column 2 line 4) and thus provide varying levels of access.

34. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams US Patent No 5,692,157 and Garrison US PG Pub 2001/0011349, as applied to claim 19 above, and in further view of Spencer et al US Patent No. 6,356,909.

35. With regards to claims 25-26, Williams as modified above fails to teach the remote terminal communicating with the main office through a web site, the remote terminal providing information to a web site, and the remote terminal retrieving information from the website. Spencer describes a web-based method of requests and responses. Spencer discloses that remote clients communicate with a server through web sites (column 6, lines 31-35). Remote clients provide information to the web site such as search criteria for querying a database (column 6, lines 35-40). The main

server for a database maintains a website that acts as a user interface for the database (column 6, lines 37-38) and the remote clients access information from the website (column 6, lines 32-35). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to provide a system whereby a website would act as the communication portal for main office and remote office communications because the use of a web site provides a well known common interface that is secure and easy to use (column 3, lines 58-61).

36. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being anticipated by Lipner et al US Patent No. 5,553,304 in view of Williams US Patent No. 5,692,157 and Garrison US PG Pub 2001/0011349.

37. With regards to claim 27, Lipner discloses a database system (column 2, lines 25-28) that includes a plurality of fields (Figure 2B) that includes data elements termed descriptors that represent physical features of a power plant (column 7, lines 32-37) and functions that relate the data elements (descriptors) to specific values (column 7, lines 49-51). Lipner proposes a test function, E0, which includes the first operator (substep a) and a second operator (substep b) (column 4, lines 52-60). Lipner fails to teach a main office retaining access rules and data rules and being in communication with at least one remote office, the access rule comprising a formatting standard rule, the formatting standard rule being sent to the remote office before data transmission, and a single permissible formatting standard rule used for data transfers of that type that is automatically sent to a remote office before sending data. Williams teaches a main

office retaining access rules and data rules and being in communication with a remote office (Williams, column 13 lines 27-31, Figure 3), wherein for each type of data transfer from the remote office to the main office there is an access rule that comprises an only formatting standard rule used by the main office for data transfers of that type (Williams, column 13 lines 27-31), and wherein the formatting standard rule for the data transfer of that type is sent to the remote office before the remote office sends entered data to the main office such that the entered data is first correctly formatted to be compatible with the only format (Williams, column 14 lines 9-11, only one format) used by the main office for the data transfer of that type (Williams, column 13 lines 8-31, receive formats then perform operations). Garrison teaches a single permissible formatting standard rule used for data transfers of that type that is automatically sent to a remote office before sending data (Garrison, Figure 4A, user initiates contact to server, server responds with encryption key that must be used to format all data sent to server, Paragraphs 0062-0065). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Williams' method of sending formatting standard rules before data transfer and Garrison's method of sending a single permissible rule to a remote server with Lipner's method of generating complex operating procedures because they offer the advantage of registering data formats that the main office application can send and receive data in; thus providing a mechanism for transferring data between remote offices and main offices in a designated format (Williams, column 2 lines 38-61) and the advantage of frustrating attempts by hackers to

spoof the server with requests for data previously used in other data sessions (Garrison, paragraph 0064).

38. With regards to claim 28, Lipner as modified above discloses the first operator (substep a) and a second operator (substep b) being formed from the contents of other tables (column 4, lines 53-55 and Figure 2B). Lipner further discloses data elements stored in a descriptor table of the database (Figure 2B).

39. With regards to claims 29 and 30, Lipner as modified above discloses a steps table that stores operators and data elements in a predetermined order (column 4, lines 52-55 and Figure 2B). The steps are formed into equations in the predetermined order such as substeps a to b to c to produce the desired function (column 4, lines 52-55).

Conclusion

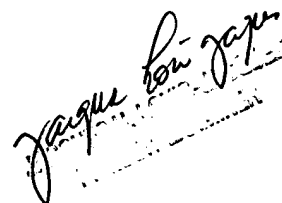
40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Nalven whose telephone number is 571 272 3839 (before October 26, 2004) or 571 272 3839 (after October 26, 2004). The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on 571 272 6962. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2134

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Nalven

A handwritten signature in black ink, appearing to read "AN", is written over a horizontal line.A handwritten signature in black ink, appearing to read "Jacques Bon Zapp", is written over a horizontal line.